

CLAIMS

[1] An exhaust gas purifying apparatus for an internal combustion engine having:

NO_x removing means provided in an exhaust system of said engine, for adsorbing NO_x in exhaust gases from said engine when exhaust gases are in an oxidizing state, said NO_x removing means reducing the adsorbed NO_x to generate ammonia and retaining the generated ammonia when the exhaust gases are in a reducing state;

reforming means provided upstream of said NO_x removing means, for reforming reducing components in the exhaust gases to hydrogen when the exhaust gases are in the reducing state; and

fuel adding means for adding fuel to the exhaust gases which flow into said reforming means.

[2] An exhaust gas purifying apparatus according to claim 1, wherein said reforming means is a reforming catalyst.

[3] An exhaust gas purifying apparatus according to claim 1, wherein said reforming means is a partial oxidation catalyst.

[4] An exhaust gas purifying apparatus according to claim 3, wherein said reforming means contains at least rhodium.

[5] An exhaust gas purifying apparatus according to claim 1, wherein said reforming means is a three-way catalyst.